

PRODUCT INFORMATION PACKET

Model No: 405TSTFS6502

Catalog No: E493

100 HP Severe Duty Motor, 3 phase, 3600 RPM, 575 V, 405TS Frame, TEFC
Severe Duty Motors



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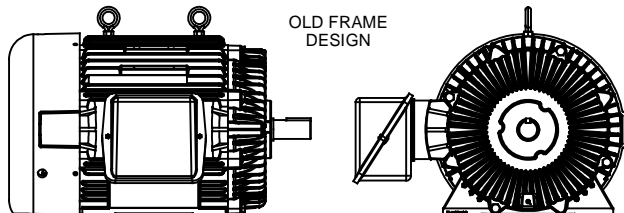
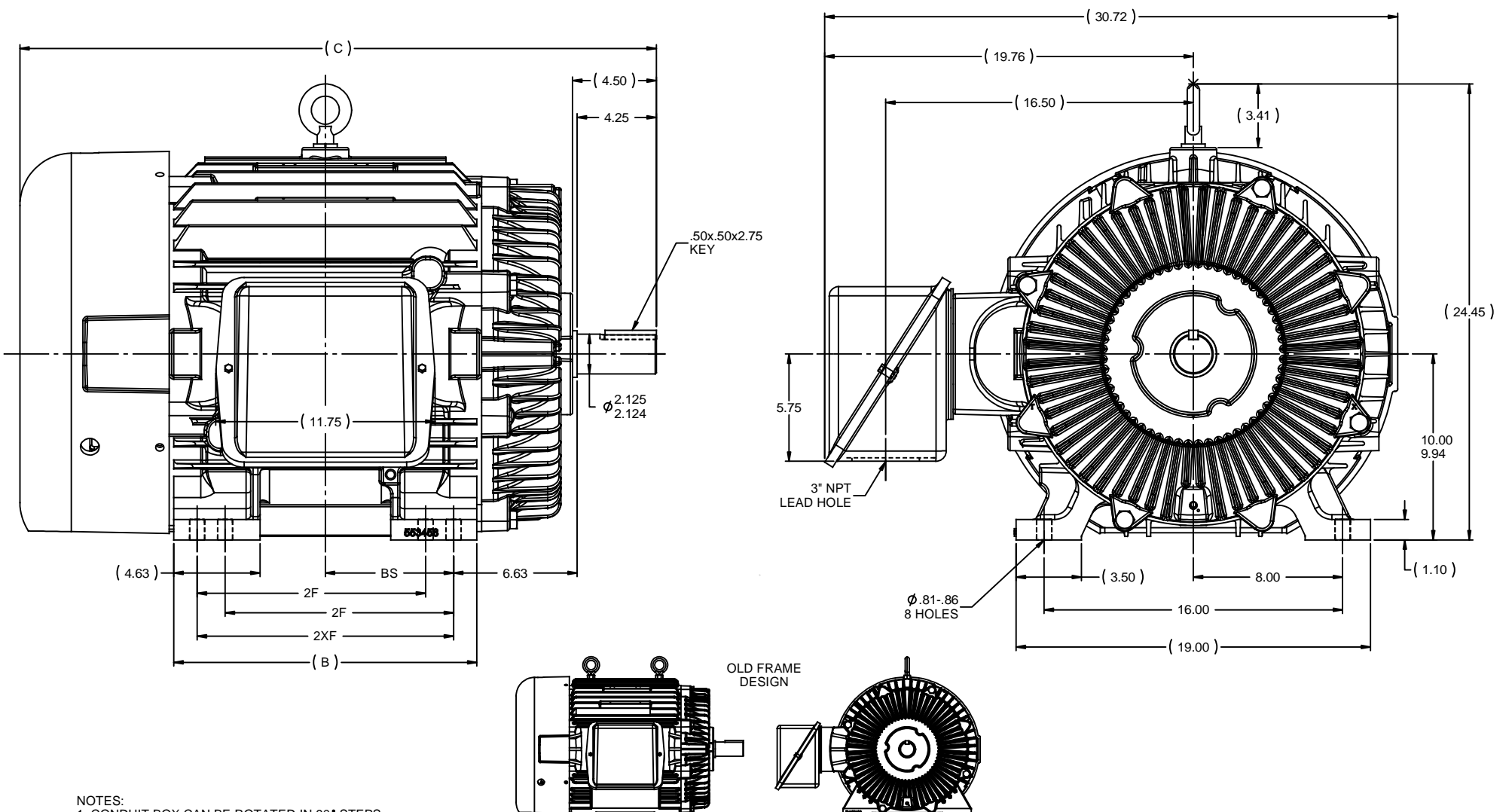
Nameplate Specifications

Output HP	100 Hp	Output KW	75.0 kW
Frequency	60 Hz	Voltage	575 V
Current	86.5 A	Speed	3565 rpm
Service Factor	1.15	Phase	3
Efficiency	95 %	Power Factor	91.5
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Frame	405TS	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No	Ambient Temperature	40 °C
Drive End Bearing Size	6313	Opp Drive End Bearing Size	6313
UL	Recognized	CSA	Y
CE	Y	IP Code	54
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	2	Rotation	Reversible
Resistance Main	.051 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	TS	Overall Length	34.13 in
Frame Length	16.75 in	Shaft Diameter	2.125 in
Shaft Extension	4.5 in	Assembly/Box Mounting	F1/F2 Capable
Connection Drawing	A-EE7300U	Outline Drawing	B-SS509125-1675

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NOTES:
 1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
 2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180° OF MOTOR.
 3. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DASH	FRAME	B	C	BS	2F	2XF
1525	404TS	14.75	32.63	6.12	12.25	---
1675	404/405TS	16.25	34.13	6.88	12.25	13.75

NO	REVISION	BY & DATE	CHK	ANG	±7'30"	FINISH	SIZE	DRAWING NO	REV
8	REDRAWN IN SOLIDWORKS W/ L.W. FRAME MU98878	EDK 11/29/2010	MH	DEC	INCHES		B	SS509125	8
7	UPDATED FRAME & ADDED 404 INFO CN27430	KL 10-25-2008	x		±.1				
6	REDRAWN IN AUTOCAD	TAT 06-29-2004	.XX		±.03	TITLE OUTLINE			
5	ADDED NEMA 'O' DIM.	MRB 09-12-1998	.XXX		±.005	400TS/US FR. - TEFC - STD.			
4	REDRAWN ON CADD	TLB 05-19-1988	.XXX		±.0005	MAT'L			



DRAWN TLB 05-19-1988
 CHK FG 05-20-1988
 APPR ML 05-22-1998
 SCALE 1:5
 REF
 FMF
 PAGE OF



IF MOTOR HAS 9 LEADS



IF MOTOR HAS 6 LEADS



A-9806 DECAL IF CALLED FOR

IF MOTOR HAS 12 LEADS



VIEW OF TERMINAL END

DRAWING REVISION L	REVISION BY AJW	DATE 05-04-2015	TOLERANCES UNLESS OTHERWISE SPECIFIED:	DRAWN BY DRS	Regal Beloit America, Inc.																			
ECO ECO-0077067	APPROVED BY EWH	DATE 05-05-2015	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"><u>DEC.</u></td> <td style="text-align: center;"><u>INCH</u></td> <td style="text-align: center;"><u>mm</u></td> <td style="text-align: center;"><u>ANGLE</u></td> </tr> <tr> <td style="text-align: center;">.X</td> <td style="text-align: center;">±0.1</td> <td style="text-align: center;">[±2.5]</td> <td style="text-align: center;">±7' 30"</td> </tr> <tr> <td style="text-align: center;">.XX</td> <td style="text-align: center;">±0.02</td> <td style="text-align: center;">[±0.51]</td> <td></td> </tr> <tr> <td style="text-align: center;">.XXX</td> <td style="text-align: center;">±0.005</td> <td style="text-align: center;">[±0.127]</td> <td></td> </tr> <tr> <td style="text-align: center;">.XXXX</td> <td style="text-align: center;">±0.0005</td> <td style="text-align: center;">[±0.0127]</td> <td></td> </tr> </table>	<u>DEC.</u>		<u>INCH</u>	<u>mm</u>	<u>ANGLE</u>	.X	±0.1	[±2.5]	±7' 30"	.XX	±0.02	[±0.51]		.XXX	±0.005	[±0.127]		.XXXX	±0.0005	[±0.0127]	
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.XXXX	±0.0005	[±0.0127]																						
ECO DESCRIPTION UPDATED TO SOLIDWORKS			REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.076/.381] X 45° CORNER FILLETS: R.02 [.51] MACHINED SURFACES: 200 $\sqrt{\text{INCH}}$ 5.1 $\sqrt{\text{mm}}$	APPROVED BY GK	DESCRIPTION CONN DIAGRAM-EXTERNAL 3Ø SINDLE VOLTAGE																			
				DATE 09-30-1996		MATERIAL	PROCESS/FINISH																	
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				THIRD ANGLE PROJECTION	A	EE7300U	1 OF 1																	

CERTIFICATION DATA SHEET

Model#: 405TSTFS6502 DU **WINDING#:** T405247 NONE 3
CONN. DIAGRAM: A-EE7300U **ASSEMBLY:** F1/F2 CAPABLE
OUTLINE: B-SS509125-1675

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN		
100	75	3600	3565	405TS	TEFC	G	B		
PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	575	86.5	LINE OR INVERTER	CONTINUOU S	F1	1.15	40	3300
FULL LOAD EFF: 95		3/4 LOAD EFF: 95	1/2 LOAD EFF: 94.5		GTD. EFF	ELEC. TYPE		NO LOAD AMPS	
FULL LOAD PF: 91.5		3/4 LOAD PF: 90.5	1/2 LOAD PF: 86		94.5	SQ CAGE INV RATED		19.2	
F.L. TORQUE		LOCKED ROTOR AMPS		L.R. TORQUE	B.D. TORQUE		F.L. RISE°C		
147 LB-FT		580		230 LB-FT 156	410 LB-FT 279		70		
SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT			
78 dBA	88 dBA	16.5 LB-FT^2	65 LB-FT^2	15 SEC.	2	1300 LBS.			

***** SUPPLEMENTAL INFORMATION *****

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAIN
STANDARD	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	DIVISION 2 T2B	FALSE	NONE	BLUE (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE	POLYREX EM	TS	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
BALL	BALL						
6313	6313						

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs	NONE	FALSE	NONE VOLTS
NONE	NOT	NONE	NONE			

If Inverter equals NONE, contact factory for further information

INVERTER TORQUE: CONSTANT 2:1
INV. HP SPEED RANGE: 1.5 X BASE SPEED
ENCODER: NONE
NONE NONE
NONE NONE PPR
BRAKE: NONE NONE
NONE P/N NONE
NONE NONE
NONE FT-LB NONE V NONE Hz

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DATE: 06/22/2017 12:10:42 AM
 FORM 3531 REV.3 02/07/99
 ** Subject to change without notice.

Data Sheet

Date: 6/20/2017

405TSTFS6502

Customer: _____



Attention: _____

Submittal

Submitted by: FAREEDA DUDEKULA

Data @ 575 V

Motor Load Data

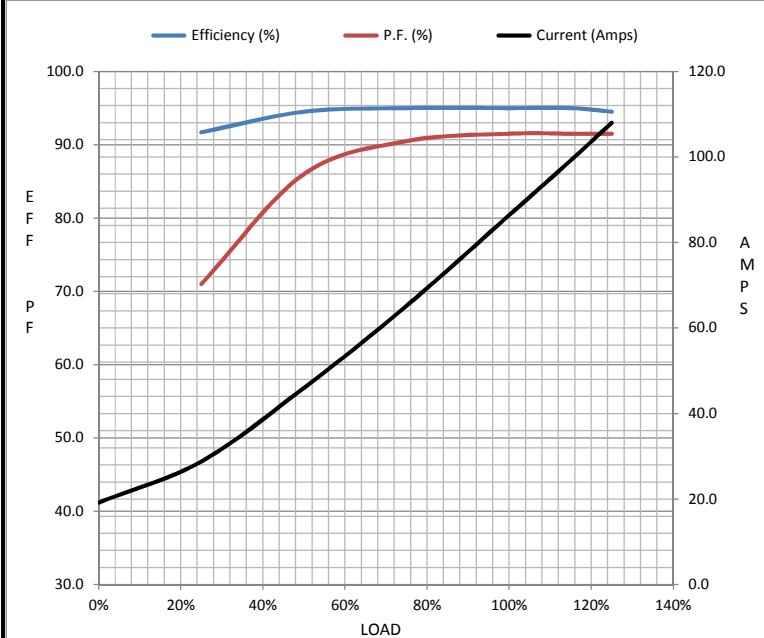
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	19.2	28.8	46.0	65.2	86.4	99.2	108	580
Torque (ft-lb)	0.00	36.5	73.5	110	147	170	185	230
RPM	3600	3592	3582	3572	3565	3,560	3555	0
Efficiency (%)		91.7	94.5	95.0	95.0	95.0	94.5	
P.F. (%)	7.5	71.0	86.0	90.5	91.5	91.5	91.5	31.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3415	3565	3600
Current (Amps)	580	520	340	86.4	19.2
Torque (ft-lb)	230	200	410	147	0.00

Information Block

HP	100.0			
Sync. RPM	3600			
Frame	405			
Enclosure	TEFC			
Construction	TFS			
Voltage	575 V			
Frequency	60 Hz			
Design	A			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	70 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	16.5 Lb-Ft ²			
Ref Wdg	T405247 NONE			
Sound Pressure @ 1M	78 dBA			
VFD Rating	CONSTANT 2:1			
Outline Dwg	B-SS509125-1675			
Conn. Diag	A-EE7300U			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0620	0.0370	0.4200	0.3190	16.9070



Speed -Torque Curve

